

REMARKS

The claims have been amended to resolve issues raised by the Examiner. Entry of the amendments is respectfully requested.

Restriction

The Examiner states that since Group I drawn to the diamine precursors was chosen, the claims directed to the polymers made therefrom should be withdrawn also. As previously stated, Applicants disagree that these are different inventions, yet to further prosecution, Applicants have canceled the non-elected claims without prejudice to the filing of a divisional application directed thereto.

Rejection under 35 U.S.C. 112, Second Paragraph

Claims 3, 6-8, 12, 13, 22, 25-30, and 32-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

In particular, the Examiner indicates that the term "may" is inappropriate and should be replaced, that the term "lower alkyl" is indefinite and should be replaced, that the terms "preferably", "particularly preferred", "more preferred" or "especially preferred" are indefinite and should be replaced, and that the term "the like" is indefinite and should be replaced.

In response, and to expedite allowance, Applicants have amended the claims to delete the terms at issue and replace them with definite recitations as discussed below.

- To further prosecution, Applicants have replaced the term "may" with "is" and duplicated the appropriate wording to include the possibility for "is not".

- To further prosecution, Applicants have replaced the term “lower alkyl” based on the definition according to page 23 of the description, which reads “a straight chain and branched hydrocarbon radical having from 1 to 6 carbon atoms.”
- To further prosecution, Applicants have deleted the terms “preferably” and particularly preferred”.
- To further prosecution, Applicants have deleted the term “the like”.

Accordingly, Applicants submit that this rejection is overcome, and withdrawal of this rejection is respectfully requested.

Anticipation Rejection

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Beilstein (1988-2001 Beilstein Institut, cited in IDS) or Takao et al (US 6139927), herein Takao, as evidenced by Crabtree et al (US 4725342) herein Crabtree.

In response, Applicants note initially that the Examiner rejects claim 18 as being anticipated by Beilstein and Takao, which disclose diamines of Formula 1 wherein A1 and A2 are a nitrile, ester, acid or alkyl, as evidenced by Crabtree (US 4725342), which discloses that chemically inert alkanes can be dimerized photochemically (column 1, line 20).

Applicants respectfully disagree and first would like to point out that column 1, line 20 of Crabtree discloses a photolysis reaction of alkane-, ether- or methanol-vapor with Hg vapor. First, these are clearly reaction conditions that are not applicable to the present compounds as they are in a vapor phase. Second, the Examiner has extrapolated the findings or conclusions for groups such as alkanes, ethers and alcohols to groups according to Beilstein and Takao such as acids, esters, nitriles and tertiary alkyl groups. Clearly these groups are of very different nature

in that the first group represents activating groups and the latter group represents deactivating groups. Thus their reactivity is exactly reversed and therefore it is more likely that the involved reactions of the described photolysis (such as H abstraction) can not occur. Thus such an extrapolation is not appropriate.

Furthermore, Applicants find upon thorough study of Crabtree that the photolysis described is not a very "controlled" reaction, i.e., the products obtained are a mixture of all possible combinations of primary, secondary and tertiary centers (see column 7, line 56 ff). Clearly, if applied to the more complex compounds (such as the ones from Beilstein and Takao, and of the present invention), the outcome would be a mixture of different species and would not be reproducible.

Applicants further found that Crabtree discloses that the reaction is under steric control, i.e., the reactivity diminishes with increasing steric hindrances. Again, if applied to the complex compounds of Beilstein and Takao, and the present invention, wherein A1 and A2 are linked to a tertiary or quaternary carbon atom, such a reaction would clearly be not feasible.

Last but not least, Crabtree discloses throughout the description including the claims and in particular in column 8, line 45 ff, that the presence of any unsaturation in the molecule suppresses the desired reaction. Thus, in view of the aromatic compounds of Beilstein and Takao, and the present invention, such a reaction is clearly not applicable:

"The starting compounds for the process of this invention are saturated hydrocarbons (aromatics and unsaturated aliphatics suppress or kill the desired reaction), primary alcohol derivatives thereof (secondary and tertiary alcohols suppress the desired reaction) and saturated hydrocarbon ethers."

In summary, Applicants find that the compounds of Beilstein and Takao cannot be considered photoisomerizable or photodimerizable and thus do not anticipate the compounds according to claim 18.

Thus, Applicants submit that this rejection has been overcome, and withdrawal of this rejection is respectfully requested.

Allowable Subject Matter

The Examiner indicates that claims 4-5, 9-11, 14-17, 19, 20, 22-24, 31 and 36-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants thank the Examiner for the indication that claims 4-5, 9-11, 14-17, 19, 20, 22-24, 31 and 36-41 contain allowable subject matter. Applicants submit that in view of the above amendments and remarks, the other pending claims should be allowable as well, and thus withdrawal of the objection is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Bruce E. Kramer
Registration No. 33,725

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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